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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/023,082	12/17/2001	Ichiro Fujieda	15168	7772
23389	7590	08/18/2004	EXAMINER	
SCULLY SCOTT MURPHY & PRESSER, PC 400 GARDEN CITY PLAZA GARDEN CITY, NY 11530			MACCHIAROLO, PETER J	
			ART UNIT	PAPER NUMBER
			2879	

DATE MAILED: 08/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/023,082		FUJIEDA ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Peter J Macchiarolo		2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3,8,12,18 and 19 is/are allowed.
- 6) ☒ Claim(s) 1,2,4-7,9-11 and 13-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                      |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____   |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)  |
| Paper No(s)/Mail Date <u>7-6-04</u> .  | 6) <input checked="" type="checkbox"/> Other: <u>Reasons for Allowance</u> . |

## **DETAILED ACTION**

### ***Request for Continued Examination***

1. The reply filed on 06/01/2004 consists of changes to the claims, and further, the reply consists of remarks related to the prior rejection of claims in the previous Office Action. The request for continued examination filed 06/01/2004 is acceptable and an RCE has been established. However, claims 1, 2, 4-7, 9-11, and 13-17 are not allowable as explained below. An action on the RCE follows.

### ***Information Disclosure Statement***

2. The information disclosure statement (IDS) submitted on 07/06/2004 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. **Claim 1, 4, 5, 6, 9, 10, and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamazaki (USPGPUB 20010017517: "Yamazaki").**

4. Regarding claim 1, Yamazaki shows in figures 1a-1e, a light emitting device comprising a thin film transistor (202) on an insulating base material (101); and above the TFT, a luminous section including a luminous material layer (127); and electrode layers (124, 128) supplying current to the luminous material layer; and a plurality of openings (300) intermittently spaced in one pixel in a predetermined pattern on one of the insulating base material and at least one material placed above the insulating base material and below the luminous material layer.

5. Regarding claim 4, Yamazaki shows in figures 1a-1e, 4a and 4b, a light emitting device comprising, a TFT (202) on an insulating base material (101); and stacked above the insulating base material, at least an insulating layer (402), a first electrode layer (128) to supply current to a luminous material layer (127), the luminous material layer emitting light by supplying current thereto, and a second electrode layer (124) to supply current to the luminous material layer; the first electrode layer being made of a transparent material;<sup>1</sup> the second electrode layer being made of a reflecting material;<sup>2</sup> a plurality of openings (300) intermittently spaced in one pixel on one of the insulating base material and at least one material placed above the insulating base material and below the luminous material layer; and the first electrode layer on convex sections of the insulating layer.

6. Regarding claim 5, Yamazaki shows in figures 1a-1e, 4a, and 4b, a light emitting device comprising a TFT (202) on an insulating base material (101); and stacked above the insulating base material, at least an insulating layer (402), a first electrode layer (124) to supply current to a

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<sup>1</sup> Yamazaki, para. [0133].

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luminous material layer (127), the luminous material layer emitting light by supplying current thereto, and a second electrode layer (128) to supply current to the luminous material layer; the second electrode layer being made of a transparent material;<sup>3</sup> the first electrode layer being made of a reflecting material;<sup>4</sup> a plurality of intermittently spaced openings (300) in a predetermined pattern on at least one of the insulating base material and at least one material placed above the insulating base material and below the luminous material layer; and the second electrode layer is on concave sections of the luminous material layer.

7. Regarding claims 6, 9, and 10, Yamazaki discloses that the luminous material layer is made of organic material.<sup>5</sup>

8. Regarding claim 15, Yamazaki shows in figures 1a-1e, a production method of a light emitting device formed through a thin film transistor (TFT) fabrication process fabricating a TFT (201) on an insulating base material (101) and a luminous section fabrication process fabricating a luminous section including a luminous material layer (127) and electrode layers (124, 128) supplying current to the luminous material layer above the TFT, comprising a process of developing a plurality of intermittently spaced openings in a predetermined pattern to at least one of the insulating base material and at least one material placed above the insulating base material and below the luminous material layer in the TFT fabrication process or the luminous section fabrication process.

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<sup>2</sup> Yamazaki, para. [0013].

<sup>3</sup> Yamazaki, para. [0133].

<sup>4</sup> Yamazaki, para. [0013].

<sup>5</sup> Yamazaki, para. [0049].

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claim 2, 7, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki in view of previously cited Yamazaki (USPN 6433487; “*Yamazaki*’487”).**

10. Regarding claim 2, Yamazaki shows in figures 5a-5c, stacked above an insulating base material (132), a first electrode layer (501) to supply current to a luminous material layer (502), the luminous material layer emitting light by supplying current thereto, and a second electrode layer (503) to supply current to the luminous material layer; either the first electrode layer or the second electrode layer being made of a transparent material;<sup>6</sup> and a plurality of intermittently spaced openings in a predetermined pattern on either the first electrode layer or second electrode layer made of the transparent material.

11. Yamazaki is silent to concavities and convexities formed on the luminous material layer and on the other electrode layer.

12. However, *Yamazaki*’487 teaches in figure 2 that this configuration effectively diffuses external stray light without using a conventionally necessary high price circular polarizing film, and therefore it is possible to reduce the cost of manufacturing the EL display device.<sup>7</sup>

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<sup>6</sup> Yamazaki, para. [0133].

<sup>7</sup> *Yamazaki*’487, abstract.

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13. Therefore, in view of the above discussion, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the device of Yamazaki with *Yamazaki* '487's concavities and convexities to reduce the cost of manufacturing the EL display device.

14. Regarding claim 7, Yamazaki discloses the luminous material is made of organic materials.

15. Regarding claim 16, Yamazaki shows in figures 5a-5c, a production method of a light emitting device comprising steps of: forming a first electrode layer (501) to supply current to a luminous material layer (502) above an insulating base material (132); forming the luminous material layer emitting light by supplying current thereto on the first electrode layer; and forming a second electrode layer (503) to supply current to the luminous material layer on the luminous material layer, wherein at least one of the first electrode layer and the second electrode layer is made of a transparent material;<sup>8</sup> and a plurality of intermittently spaced openings are developed in a predetermined pattern to the electrode layer made of the transparent material.

16. Yamazaki is silent to concavities and convexities formed on the luminous material layer and on the other electrode layer.

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<sup>8</sup> Yamazaki, para. [0133].

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17. However, *Yamazaki '487* teaches in figure 2 that this configuration effectively diffuses external stray light without using a conventionally necessary high price circular polarizing film, and therefore it is possible to reduce the cost of manufacturing the EL display device.<sup>9</sup>

18. The motivation and reason for combining is the same as claim 2 above.

19. **Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki in view of *Yamazaki '487* in further view of Applicant's admitted prior art.**

20. Regarding claim 11, Yamazaki discloses the luminous material layer may be made of inorganic materials,<sup>10</sup> and further shows in figure 4b that a first insulating layer (402) is between the luminous material layer and the first electrode layer.

21. Yamazaki and *Yamazaki '487* are silent to a second insulating layer between the luminous material layer and the second electrode layer.

22. However, Applicant has admitted in figure 2 that this configuration is known in the art.

23. Therefore, in view of the above discussion, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the device of Yamazaki and *Yamazaki '487* with a second insulating layer between the luminous material layer and the second electrode layer to effectively protect the luminous material.

24. **Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki in view of Applicant's admitted prior art.**

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<sup>9</sup> *Yamazaki '487*, abstract.

<sup>10</sup> Yamazaki, para. [0053].

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25. Regarding claim 13, Yamazaki discloses the luminous material layer may be made of inorganic materials,<sup>11</sup> and further shows in figure 4b that a first insulating layer (402) is between the luminous material layer and the first electrode layer.

26. Yamazaki is silent to a second insulating layer between the luminous material layer and the second electrode layer.

27. However, Applicant has admitted in figure 2 that this configuration is known in the art.

28. Therefore, in view of the above discussion, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the device of Yamazaki with a second insulating layer between the luminous material layer and the second electrode layer to effectively protect the luminous material.

29. Regarding claim 14, Yamazaki discloses the luminous material layer may be made of inorganic materials,<sup>12</sup> and further shows in figure 4b that a first insulating layer (402) is between the luminous material layer and the first electrode layer.

30. Yamazaki is silent to a second insulating layer between the luminous material layer and the second electrode layer.

31. However, Applicant has admitted in figure 2 that this configuration is known in the art.

32. The motivation and reasons for combining is the same as claim 13.

**33. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoneda et al (USPN 6392340; "Yoneda") in view of Yamazaki'487.**

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<sup>11</sup> Yamazaki, para. [0053].

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34. Regarding claim 17, Yoneda shows in figure 4a, a production method of a light emitting device comprising the steps of forming a first electrode layer (12) to supply current to a luminous material layer (14) above an insulating base material (2); forming the luminous material layer emitting light by supplying current thereto on the first electrode layer; and forming a second electrode layer (17) to supply current to the luminous material layer on the luminous material layer, wherein: at least one of the first electrode layer and the second electrode layer is made of a transparent material;<sup>13</sup> and the electrode layer made of the transparent material has a comb shape in plan view.

35. Yoneda is silent to the luminous material layer and the other electrode layer stacked on the electrode layer made of the transparent material are formed in the shape of concavities and convexities in side view.

36. However, *Yamazaki* '487 teaches in figure 2 that this configuration effectively diffuses external stray light without using a conventionally necessary high price circular polarizing film, and therefore it is possible to reduce the cost of manufacturing the EL display device.<sup>14</sup>

37. Therefore, in view of the above discussion, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the device of Yoneda with *Yamazaki* '487's concavities and convexities to reduce the cost of manufacturing the EL display device.

***Allowable Subject Matter***

38. Claims 3, 8, 12, 18, and 19 are allowed.

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<sup>12</sup> *Yamazaki*, para. [0053].

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39. The following is an examiner's statement of reasons for allowance:

40. The prior art of record to motivates or discloses the limitations of claim 3, except that the first electrode layer or the second electrode layer made of the transparent material in plan view has a comb shape partly has circular regions.

41. Claims 8 and 12 are allowable due to their dependency.

42. The prior art of record to motivates or discloses the limitations of claim 18, except that the first electrode layer is made of a transparent material.

43. The prior art of record to motivates or discloses the limitations of claim 19, except that a plurality of intermittently spaced openings are formed in a predetermined pattern to at least one of the insulating base material and at least one material placed above the insulating base material and below the luminous material layer in the TFT fabrication process or the insulating layer forming process.

44. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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<sup>13</sup> Yoneda, col. 3, line. 66 to col. 4, line 11.

***Response to Arguments***

45. Applicant's arguments filed 06/01/2004 have been fully considered but are moot in view of the new ground(s) of rejection.


***Conclusion***

46. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter J Macchiarolo whose telephone number is (571) 272-2375. The examiner can normally be reached on 8:30 - 5:00, M-F.

47. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar Patel can be reached on (571) 272-2475. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

48. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
pjm

  
Joseph Williams  
Primary Examiner  
A.U. 2879

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<sup>14</sup> Yamazaki '487, abstract.